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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/669,042	09/25/2000	Christoph Widmer	32992	2828

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EXAMINER

MICHALSKI, JUSTIN I

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/669,042

Applicant(s)

WIDMER ET AL.

Examiner

Justin Michalski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11 August 2004 has been entered.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Hearing Device with Interior Channel".

Claim Objections

3. Claims 3-7 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, Claims 3-7 not been further treated on the merits. For the purpose of this rejection the office has interpreted claims 3-7 to depend on one of independent claims 8, 9, or 10.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 8 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Weinrich (US Patent 5,033,090).

Regarding Claim 8, Weinrich discloses a hearing device (Fig. 1) comprising at least one of an acoustical/electrical converter (1) and an electrical/acoustical converter (3) respectively with an acoustical input (sound 16) or output (output through 4), said input (16) being linked to a coupling opening (end of canal 5 towards auditory meatus; col 2, lines 16-18) at the outer surface of said device via a channel (5), at least a part of said outer surface of said device being formed by a unitary shell member of said device defining an inner space distinct from said channel (space containing components 1, 6, 9 and 3), said channel being provided in and along said part of said shell member and being formed in the material of said shell member.

Regarding Claim 2, in view of claim 8 Weinrich further discloses the channel (5) features varying cross-sectional dimension.

6. Claims 9, 10, and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Gauthier (US Patent 5,195,139).

Regarding Claim 9, Gauthier discloses a hearing device (Fig. 1) comprising: a one-part shell member forming at least a portion of an outer surface of said device (30),

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said shell member defining an interior space of said device (38), said shell member forming a channel out of the material of said shell member (32), said channel being formed in and along said shell member and being distinct from said interior space; and at least one of an acoustical/electrical converter (10) and an electrical/acoustical converter (12) including an acoustical input (microphone will inherently have an acoustical input) or output (output opening of 28 on right side of figure), respectively, wherein said input or output is acoustically linked to a coupling opening (end of channel 31 on right end of figure) via said channel (input of microphone is inherently acoustically linked via ambient air to passage 34, channel 32, to opening output of 28).

Regarding Claim 10, Gauthier discloses a hearing device (Fig. 1) comprising: a one-part shell member forming at least a portion of an outer surface of said device (30), said shell member defining an interior space of said device (38), said shell member forming a channel out of the material of said shell member (32), said channel being formed in and along said shell member and being distinct of said interior space (38), and, over at least a substantial length of its length, said channel running essentially parallel to said outer surface; and at least one of an acoustical/electrical converter (10) and an electrical/acoustical converter (12) including an acoustical input (microphone will inherently have an acoustical input) or output (output opening of 28 on right side of figure), respectively, wherein said input or output is acoustically linked to a coupling opening via said channel (input of microphone is inherently acoustically linked via ambient air to passage 34, channel 32, to opening output of 28), and further wherein said channel is tuned to have specific acoustical characteristics (Gauthier discloses air

vent passage 32 conducts sound from the ear canal of the hearing aid user to eliminate the occlusion effect, i.e. acoustical characteristic).

Regarding Claim 4, in view of claim 9 Gauthier discloses over at least a substantial segment of its length, the channel extends essentially parallel to the outer surface of the device.

Regarding Claim 5 and 6, Gauthier further discloses the device is a custom-molded hearing aid (Col 1, lines 48-49) that is part of a vent system (air vent 32; col. 2, lines 31-32).

Regarding Claim 7, Gauthier further discloses another channel (28), characterized in that at least certain segments of said channels extend in parallel fashion.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gauthier as applied to claim 9 and 10 above in view of Johnson (US Patent 4,311,206). Johnson discloses a device as stated apropos of claims 9 and 10 but does not disclose a matching stub line serving for the tuning of the acoustic transmission properties. Johnson discloses a matching stub line (Fig. 5, stub 52) serving for the tuning of the

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acoustic transmission properties between the coupling opening (46) and the output (65) extending into a channel (54) and bounded by the material of the shell member.

Johnson discloses the inserts may be changed to select a specific frequency response of the hearing aid (Col 4, lines 2-6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include matching stubs to produce a custom frequency response as disclosed by Johnson.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5,487,012 discloses a hearing aid with channel in one-piece shell (Figure 1).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (703)305-5598. The examiner can normally be reached on 8 Hours, 5 day/week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM

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XU MEI
PRIMARY EXAMINER